CDF Operations Summary

Bill Orejudos, LBNL

All Experimenters Meeting

August 12, 2002

Stores (8/5 – 8/12)

Store #	hrs	Lumi (E30)	Deliv'd Lumi	Recor'd Lumi	Eff.
1634	17.7	17.4	593.1	249.8	42.1%
1654	15.9	13.4	447.7	398.0	88.9%
1656	15.2	13.3	487.1	410.9	84.3%
1657	23.5	18.4	779.0	577.1	74.1%
total	72.3	----	2306.9	1635.8	70.9%

Store 1634: High Losses prevented CDF from running at start of store

Store 1657: Efficiency lost while trying to diagnose problem with drift chamber.

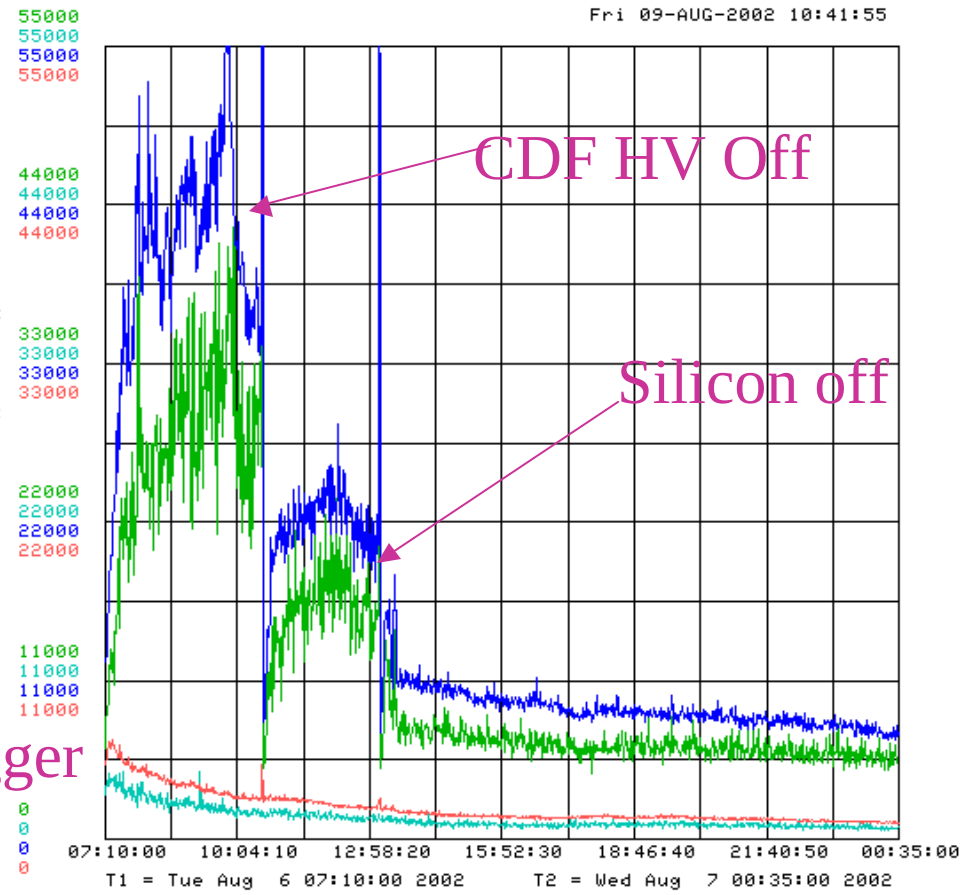
Store 1634

Losses high at beginning of store

- Silicon out 1st 6 hrs
- CDF HV off 1st 3 hrs

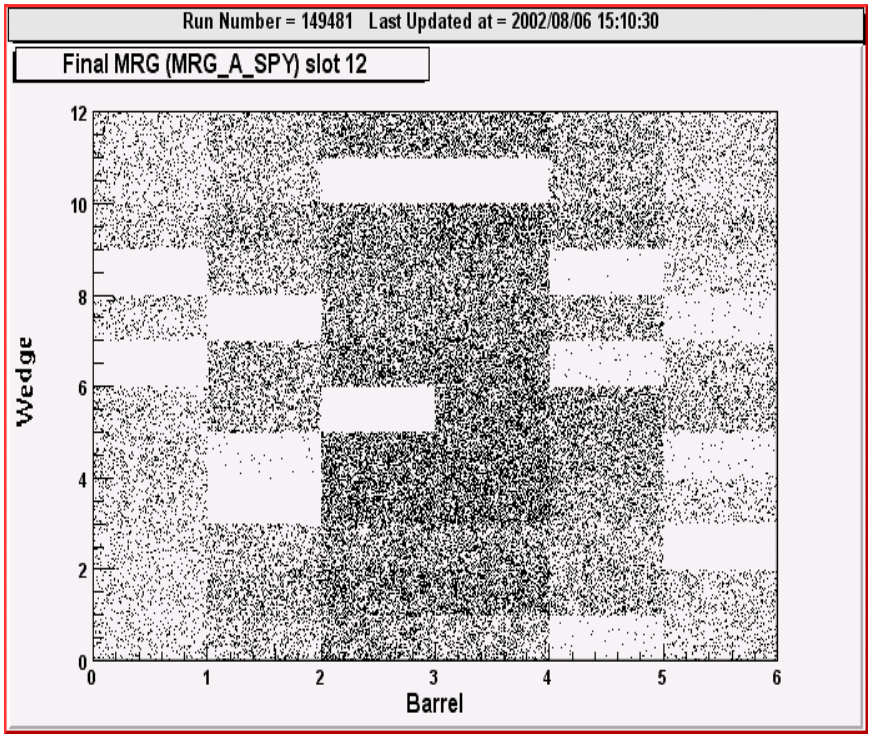
Once losses came down, spent time testing new trigger tables

- Efficiency for hadronic B trigger at L2 now much improved

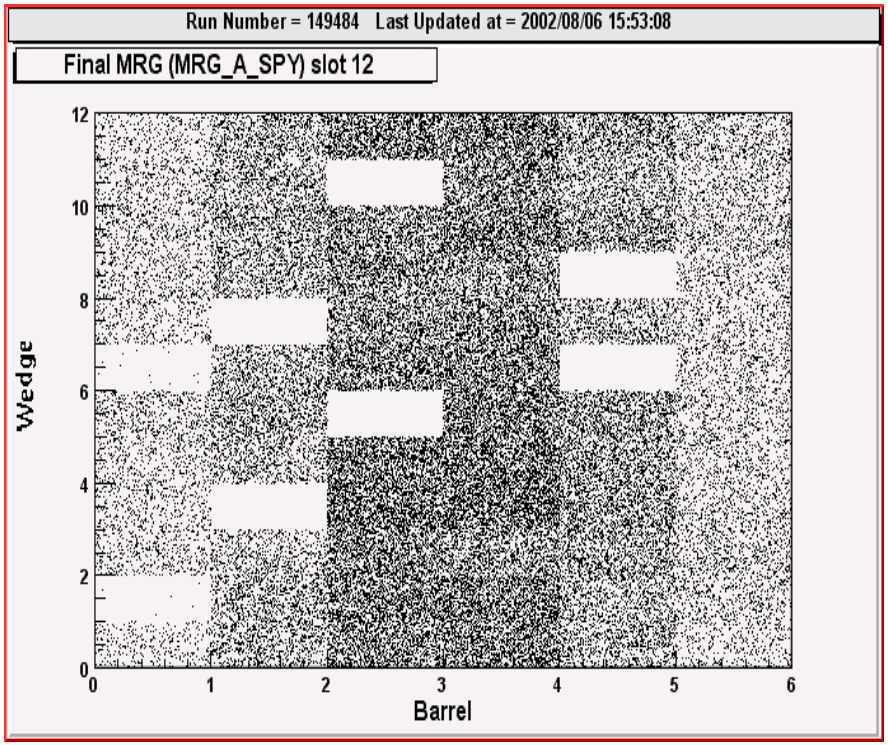


Hadronic B trigger improved!

before



after



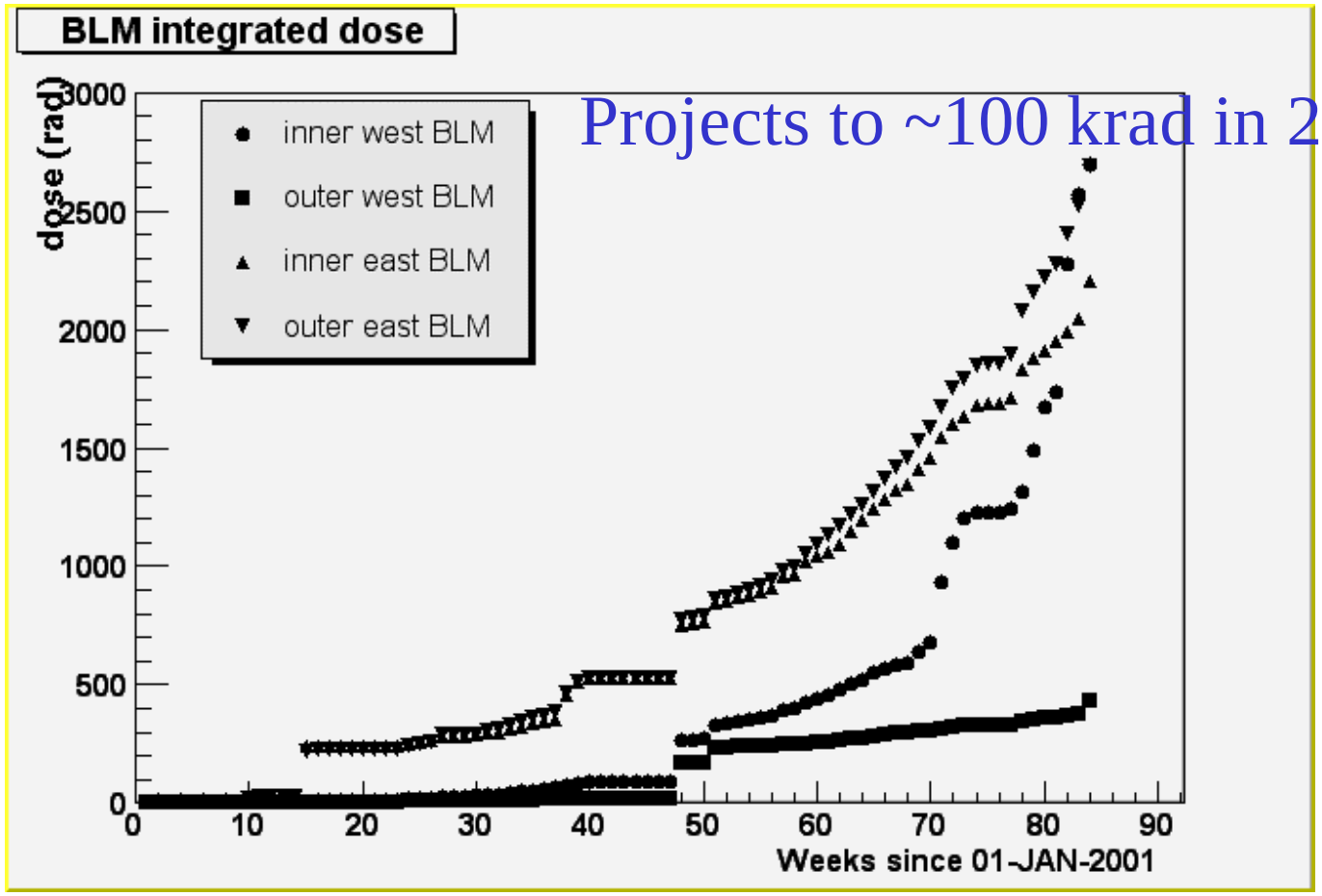
Holes in SVT coverage = Wedges with less than 4 (out of 5) ladders

Further improvement: Trigger on trks w/ hits on 3 ladders?

COT Problem

- At start of store 1657 (Sunday morning), shift crew tried to raise COT HV and failed
  - Problem in superlayer 2, quadrant C
  - At least 2 shifts to fix! (need to pull out the endplug on east side, a 4 hr operation).
    - Currently in access – plug has been pulled out, COT experts have access to the endplate
- Silicon stayed out for this store since the runs in this store will be marked “bad”.

Total Silicon Dose

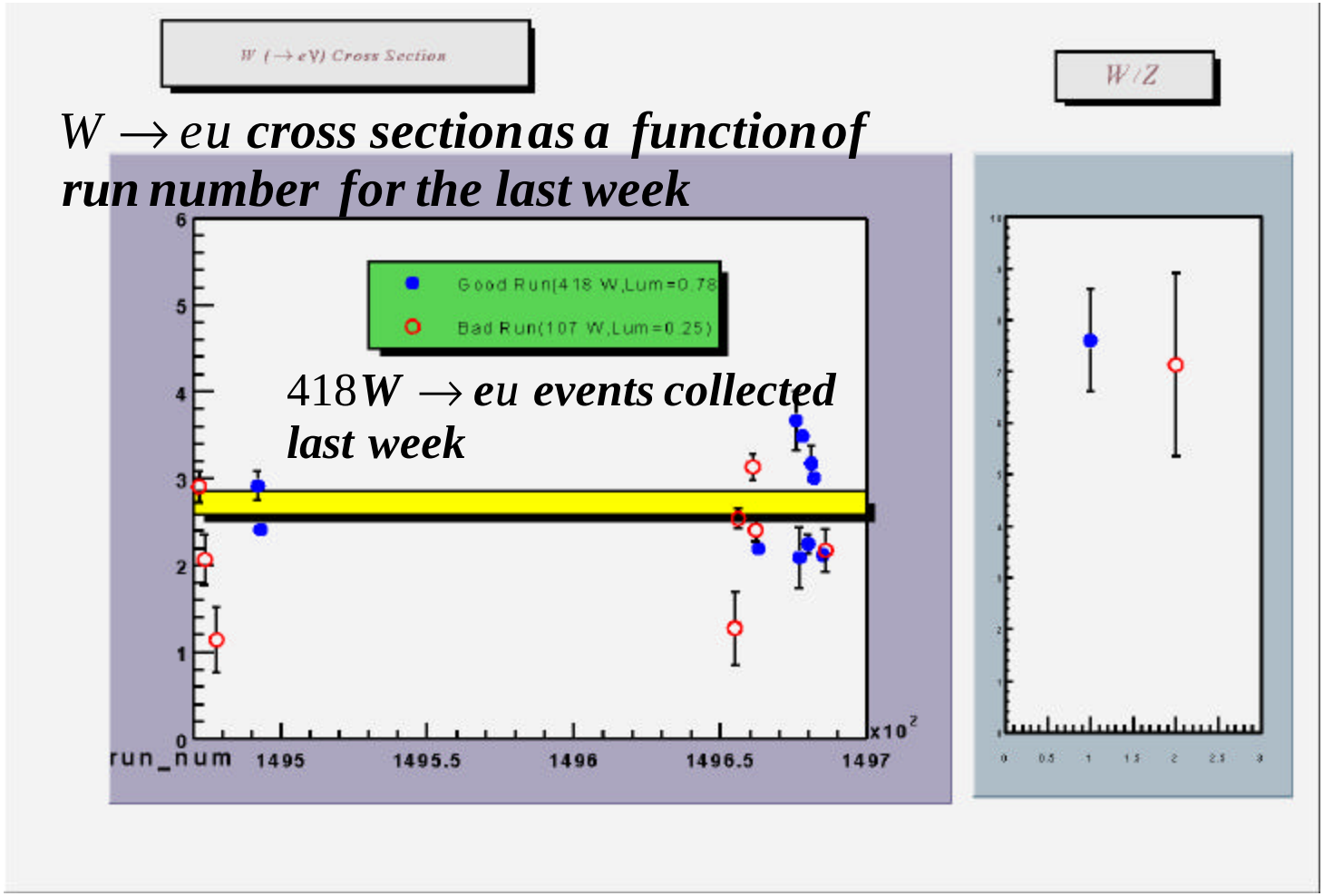


Projects to ~100 krad in 2 fb^{-1}

Dose at silicon: ~6x higher than dose at BLM

Projects to ~0.6 Mrad in 2 fb^{-1} (limit: ~2 Mrad)

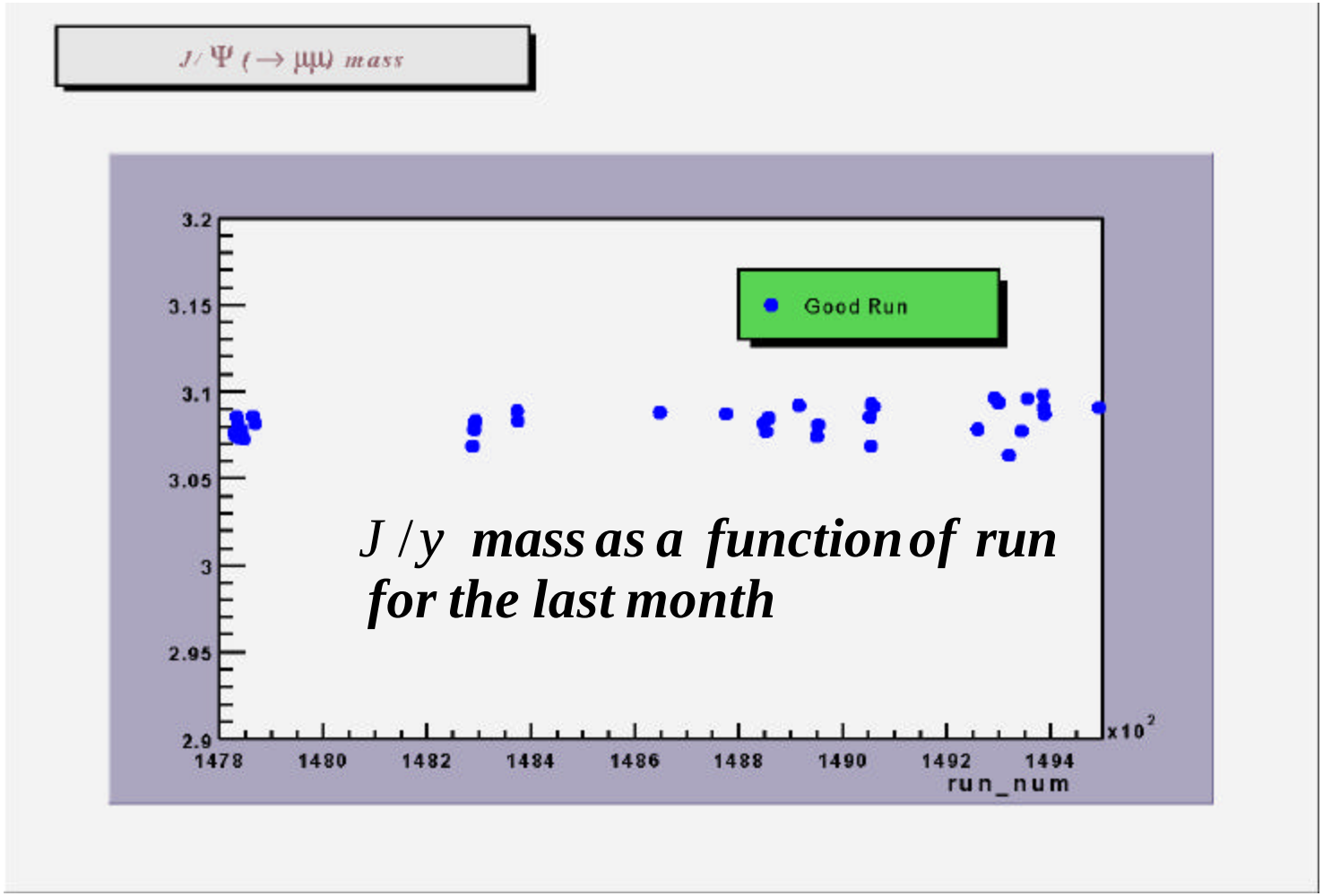
Monitoring Physics Quantities



$W \rightarrow e\nu$ ***cross section as a function of run number for the last week***

418 $W \rightarrow e\nu$ ***events collected last week***

Monitoring Physics Quantities



Conclusions

- Two stores over the weekend with >85% efficiency, silicon in most of the time
- Improved efficiency for hadronic B trigger
- Can't raise HV for COT superlayer 2, Quadrant C. Currently in access.
- Good luck to the new CDF operations managers: Matthew Jones, Phil Koehn, Eric James.